

What is claimed is:

1. A flame retarding polypropylene fiber containing 0.5 % by weight or more of a phosphoric ester-based flame retardant and 0.4 % by weight or more of an NOR type hindered amine-based stabilizer.
2. A flame retarding polypropylene fiber according to claim 1, wherein fiber strength is 4.0 cN/dtex or more.
3. A flame retarding polypropylene fiber according to claim 1 or 2, wherein a mean value of the number of times of contact flame which was obtained by measuring 5 samples in accordance with the method of JIS No. L-1091 D is 4 or more and the number of times of contact flame of 5 samples do not include a result of 3 times or less.
4. A flame retarding polypropylene fiber according to any one of claims 1 to 3, wherein a time required for firing is 10 seconds or more when a sample is fired by a micro burner in accordance with the contact flame test by the JIS No. L-1091 D method.
5. A flame retarding polypropylene fiber according to any one of claims 1 to 4, wherein the phosphoric ester-based flame retardant is an aromatic phosphate.
6. A flame retarding polypropylene fiber according to any one of claims 1 to 5, wherein R of an alkoxyl group, (-OR), of the NOR type hindered amine-based stabilizer is a cycloalkyl

group having 5 to 12 carbons.

7. A flame retarding polypropylene fiber according to any one of claims 1 to 6, containing less than 0.3 % by weight of an ultra-violet ray absorber as a light resistant stabilizer.

8. A flame retarding polypropylene fiber according to any one of claims 1 to 7, wherein the polypropylene fiber is a multifilament yarn.

9. A flame retarding polypropylene fiber according to any one of claims 1 to 8, wherein the flame retarding polypropylene fiber has a core-sheath structure, a core component is a polypropylene resin containing the phosphoric ester-based flame retardant and the NOR type hindered amine-based stabilizer, a sheath component is a polypropylene resin containing 0.3 % by weight or less of the hindered amine-based stabilizer, and the total fiber contains 0.5 % by weight or more of the phosphoric ester-based flame retardant and 0.4 % by weight or more of the NOR type hindered amine-based stabilizer.

10. A production method of a flame retarding polypropylene fiber, wherein 0.4 % by weight or more of a hindered amine-based stabilizer and 0.5 % by weight or more of a phosphoric ester-based flame retardant are mixed with a polypropylene resin having a melt flow rate value of 5 to 50 g/10min., the mixture is melt-spun to form an undrawn yarn, and then the yarn

is drafted at a drafting magnification of 2 to 7-fold and a drafting temperature of 50 to 100 °C and further set thermally at a temperature of 60 to 140 °C.

11. A flame retarding polypropylene film containing 0.5 % by weight or more of a phosphoric ester-based flame retardant and 0.4 % by weight or more of an NOR type hindered amine-based stabilizer.

12. A flame retarding polypropylene film according to claim 11, wherein R of an alkoxyl group, (-OR), of the NOR type hindered amine-based stabilizer is a cycloalkyl group having 5 to 12 carbons, and the phosphoric ester-based flame retardant is an aromatic phosphate.

13. A flame retarding polypropylene film according to claim 11 or 12, wherein a thickness of the film is 300 μ m or less, and the film is not fired at a vertical burning test of the JIS No. L-1091 A4 method, or, even if it is fired, the fire is naturally extinguished within 5 seconds without the spread of fire.

14. A flame retarding polypropylene film according to claim 11 or 12, wherein said flame retarding polypropylene film is consisted of multiple layers, at least one of intermediate layers is composed of a polypropylene resin containing the phosphoric ester-based flame retardant and the NOR type hindered amine-based stabilizer, an outermost

layer is composed of a polypropylene resin containing 0.3 % by weight or less of the hindered amine-based stabilizer, and the whole film contains 0.5 % by weight or more of the phosphoric ester-based flame retardant and 0.4 % by weight or more of NOR type hindered amine-based stabilizer.

15. A flame retarding polypropylene film according to claim 14, wherein a thickness of each of said intermediate layer is 300 μ m or less, and the film is not fired at a vertical burning test of the JIS No. L-1091 A4 method, or, even if it is fired, the fire is naturally extinguished within 5 seconds without the spread of fire.